

TEST REPORT

 CTK Co., Ltd. <small>The Prime Leader of Global Regulatory Certification</small>	CTK Co., Ltd. (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea Tel: +82-31-339-9970 Fax: +82-31-624-9501	Report No.: CTK-2022-01045 Page (1) / (25) Pages	
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1. Client

- Name : Spigen Korea Co.,Ltd.
- Address : Spigen HQ-A, 446, Bongeunsa-ro, Gangnam-gu, Seoul, 06153, South Korea
- Date of Receipt : 2022-03-23

2. Manufacturer

- Name : WITS VINA CO.,LTD
- Address : Lot CN7, Diem Thuy Ip (A area), Hong Tien Commune, Pho Yen Town, Thai Nguyen, Province, Vietnam, 24709

3. Use of Report : For FCC & ISED Certification

4. Test Sample / Model : ArcField Wireless Charger / PF2102

5. Date of Test : 2022-03-30

6. Test Standard(method) used : FCC 47 CFR part 15 subpart C 15.209



RSS-Gen Issue 5, RSS-216 Issue 2

ANSI C63.10-2013

7. Testing Environment: Temp.: (23 ± 1) °C, Humidity: (48 ± 5) % R.H.

8. Test Results : Compliance

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full.

Affirmation	Tested by  Gwanyong Kim: (Signature)	Technical Manager  Young-taek Lee: (Signature)
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Remark. This report is not related to KOLAS accreditation and relevant regulation.

2022-04-06

Republic of KOREA **CTK Co., Ltd.**

REPORT REVISION HISTORY

Date	Revision	Page No
2022-04-06	Issued (CTK-2022-01045)	all

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1. General Product Description

1.1 Client Information

Company	Spigen Korea Co.,Ltd.
Contact Point	Spigen HQ-A, 446, Bongeunsa-ro, Gangnam-gu, Seoul, 06153, South Korea
Contact Person	Name : Woo Sang-Hyup E-mail : shwoo@spigen.com Tel : +82-2-6713-6189 Fax : -

1.2 Product Information

FCC ID	2AFKNPF2102
Certification Number ISED	24998-PF2102
Product Description	ArcField Wireless Charger
Basic model (HVIN)	PF2102
FVIN	1) ABOV : SS2_20220120_4BBE 2) IDT : 102_PR1_TEST_0404
Variant Model name	-
Classification of WPT devices	<input type="checkbox"/> Type 1 (Interference-causing Equipment)
	<input type="checkbox"/> Type 2 (Category II Radio Apparatus)
	<input checked="" type="checkbox"/> Type 3 (Category I Radio Apparatus)
Operating Frequency	127.7 kHz (single frequency)
RF Output Power	94.3 dBμV/m @ 3 m
Antenna type	Coil Antenna
Charging Method	Directly contact
Power Transfer Method	Magnetic induction and only single primary coil coupling secondary coil
Output power from each primary coil	<15W
That may have multiple primary coils	No
Type of Modulation	ASK
Power Source	DC 9 V (Adapter & USB C type)
RF Power setting	Referred the measuring instrument from manufacturer

Note : the above eut information was declared by the manufacturer

1.3 Antenna Information

<input checked="" type="checkbox"/>	Integral antenna (antenna permanently attached)
<input type="checkbox"/>	Temporary RF connector provided
<input checked="" type="checkbox"/>	No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path.
<input type="checkbox"/>	External antenna (dedicated antennas)

1.4 Peripheral Devices

Device	Manufacturer	Model No.	Serial No.
Wireless charging tester1	Chargerlab(CHN)	KM001	-
Wireless charging tester2	Celfras(CHN)	MFJ-2000S(REV02)	-
Note Computer	HP	15-bs563TU	CND7253R6P
AC/DC Adapter	HP	HSTNN-LA40	7628011101

2. Facility and Accreditations

2.1 Test Facility

- 1) The measurement facility is located at (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea
- 2) 142, Dongbu-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea

2.2 Laboratory Accreditations and Listings

Country	Agency	Registration Number
USA	FCC	805871
CANADA	ISED	8737A-2
KOREA	NRRA	KR0025

2.3 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the Korea Research Institute of Standards and Science (KRISS), therefore, all test data recorded in this report is traceable to KRISS.

3. Test Specifications

3.1 Standards

Section in FCC	Section in RSS	Requirement(s)	Status (Note 1)	Test Condition
15.203	RSS-Gen 6.8	Antenna requirement	C	Radiated
15.209	RSS-216 6.2.2.2	Field strength of fundamental and Spurious emission	C	
15.215(c)	RSS-Gen 6.7	Emission Bandwidth	C	
15.207(a)	RSS-216 6.2.2.1	AC Conducted Emission	C	Line Conducted
<i>Note 1:</i> C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable				
<i>Note 2:</i> The data in this test report are traceable to the national or international standards.				
<i>Note 3:</i> The sample was tested according to the following specification: FCC Part 15.209, RSS-216, ANSI C63.10-2013				

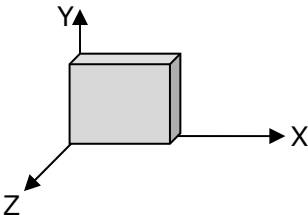
3.2 Mode of operation during the test

The EUT is operated in a manner representative of the typical of the equipments.
 During at testing, system components were manipulated within the confines of typical usage to maximize each emission.
 The results are only attached worst cases.

Test mode

Charging (Transmitting mode)
Stand-by (idle mode)


Indication of the position of the EUT to be measured

EUT faces identified relative to view from receiving antenna	
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3.3 Maximum Measurement Uncertainty

The value of the measurement uncertainty for the measurement of each parameter.
 Coverage factor $k = 2$, Confidence levels of 95 %

Description	Uncertainty
Radiated Emissions (9 kHz - 30 MHz)	1.28 dB (C.L. : Approx. 95%, $k = 2$)
Radiated Emissions (30 MHz - 1 GHz)	4.66 dB (C.L. : Approx. 95%, $k = 2$)
20 dB Bandwidth	0.02 kHz (C.L. : Approx. 95%, $k = 2$)
AC Conducted Emission	1.96 dB (C.L. : Approx. 95%, $k = 2$)

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4. Technical Characteristic Test

4.1 Antenna requirement

Regulation

According to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Result :

-Complied

The transmitter has permanently attached loop coil antenna (internal antenna) on board

4.2 Field strength of fundamental and Spurious emission

Test Location

- ☒ 10 m SAC (test distance : ☐ 10 m, ☒ 3 m)
☐ 3 m SAC (test distance : 3 m)

Test Procedures

ANSI C63.10-2013 - Section 6.4, 6.5

- 1) In the frequency range of 9 kHz to 30 MHz, magnetic field is measured with Loop Antenna. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
- 2) In the frequency range above 30 MHz, Bi-Log Test Antenna(30 MHz to 1 GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is carried from 1m to 4m above the ground to determine the maximum value of the field strength. The emissions levels at both horizontal and vertical polarizations should be tested.

Instrument Settings

Frequency Range = 9 kHz ~ 1 GHz

- a) RBW = 100 kHz for $f < 1$ GHz, 9 kHz for $f < 30$ MHz, 200 Hz for $f < 150$ kHz
- b) VBW \geq RBW
- c) Sweep time = auto couple

Limit :

FCC Part 15 § 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Table 1. Restricted Frequency Bands

MHz	MHz	MHz	MHz	MHz	GHz
0.09-0.11	8.37626-8.38675	73-74.6	399.9-410	2690-2900	10.6-12.7
¹ 0.495-0.505	8.41425-8.41475	74.8-75.2	608-614	3260-3267	13.25-13.4
2.1735-2.1905	12.29-12.293	108-121.94	960-1240	3332-3339	14.47-14.5
4.125-4.128	12.51975-12.52025	123-138	1300-1427	3345.8-3358	15.35-16.2
4.17725-4.17775	12.57675-12.57725	149.9-150.05	1435-1626.5	3600-4400	17.7-21.4
4.20725-4.20775	13.36-13.41	156.52475-156.52525	1645.5-1646.5	4500-5150	22.01-23.12
6.215-6.218	16.42-16.423	156.7-156.9	1660-1710	5350-5460	23.6-24
6.26775-6.26825	16.69475-16.69525	162.0125-167.17	1718.8-1722.2	7250-7750	31.2-31.8
6.31175-6.31225	16.80425-16.80475	167.72-173.2	2200-2300	8025-8500	36.43-36.5
8.291-8.294	25.5-25.67	240-285	2310-2390	9000-9200	² Above 38.6
8.362-8.366	37.5-38.25	322-335.4	2483.5-2500	9300-9500	

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² Above 38.6

§ 15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

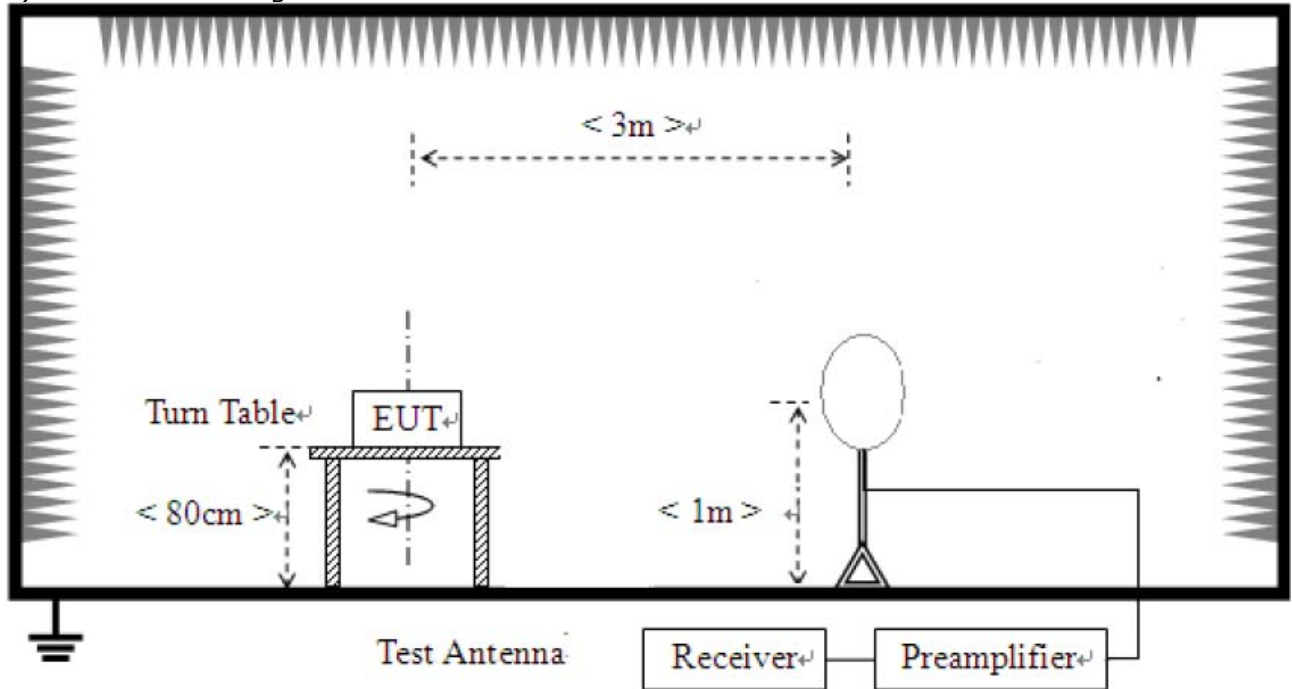
FCC Part 15 § 15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table :

Frequency (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	48.5 – 13.8	300
0.490-1.705	24000/F(kHz)	33.8 - 23	30
1.705-30	30	29.5	30
30-88	100**	40	3
88-216	150**	43.5	3
216-960	200**	46	3
Above 960	500	54	3

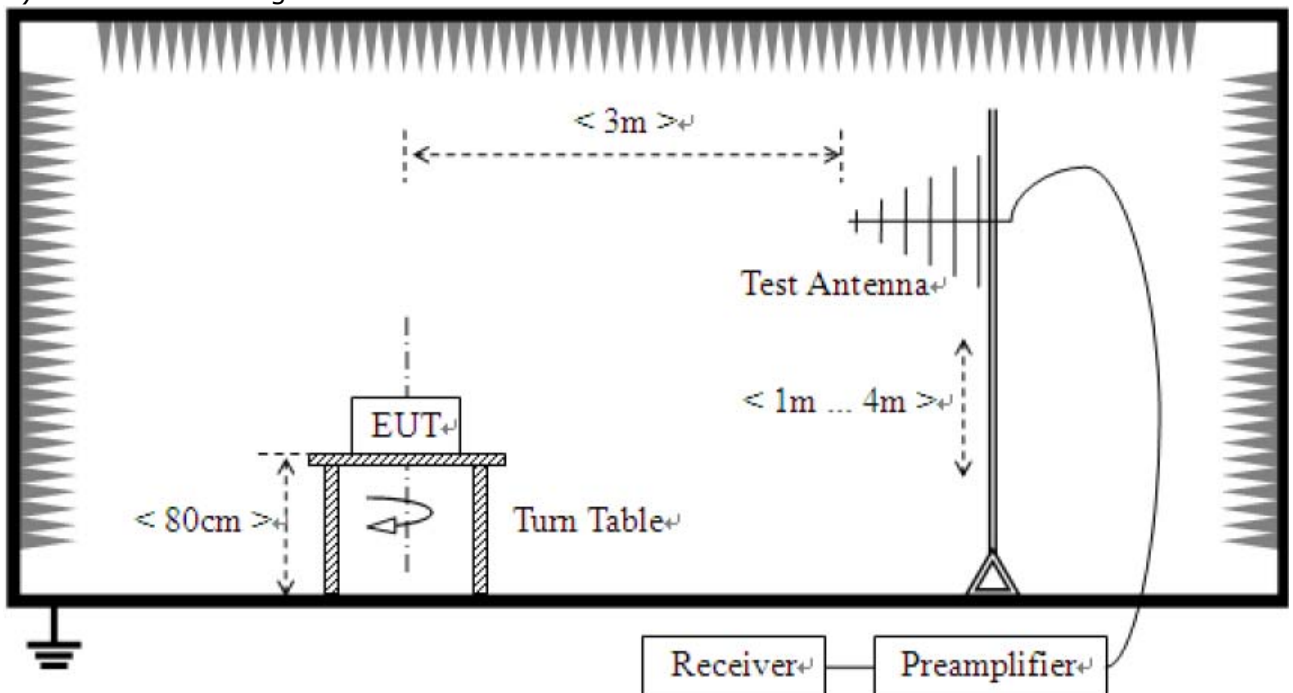
** Except as provided in 15.209(g).fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz, 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.15.231 and 15.241.

Test Setup:

- 1) For field strength of emissions from 9 kHz to 30 MHz



- 2) For field strength of emissions from 30 MHz to 1 GHz



Test results

1) Radiated emissions of fundamental frequency

Test mode : Charging (Transmitting mode)

The requirements are:

☒ Complies

Test Data

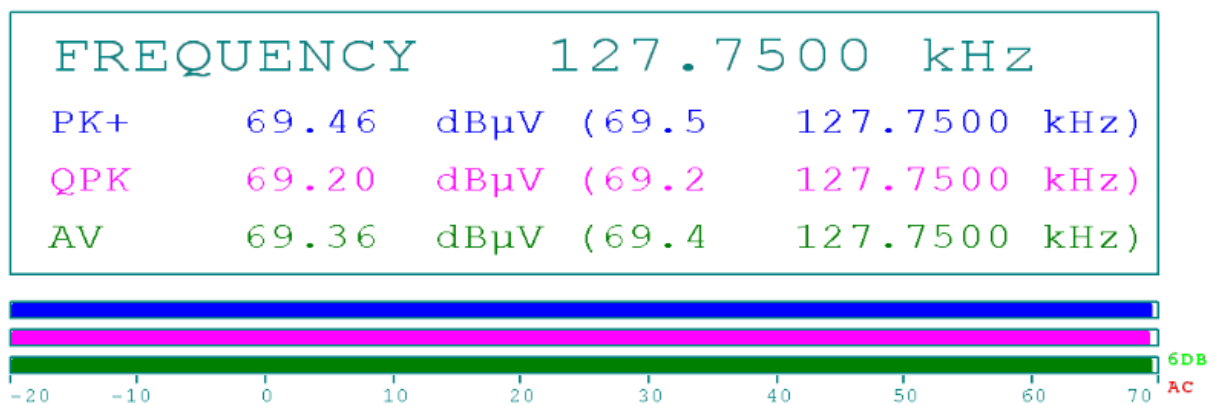


Att 10 dB

RBW 200 Hz

MT 100 ms

PREAMP OFF



Frequency [MHz]	Reading [dBuV]	c.f [dB/m]	Result [dBuV/m]	Limit [dBuA/m]	Margin[dB]	Remark
0.127 7	69.4	24.9	94.3	105.5	11.2	Average

1. Measuring position : The Unwanted emission was measured in the following position:
EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in stand-up position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. Limit : $20\log(2400/127.7) + 40\log(300/3) = 105.5$ dBuV/m

Test mode : Stand-by (idle mode)

The requirements are:

☒ Complies

Test Data

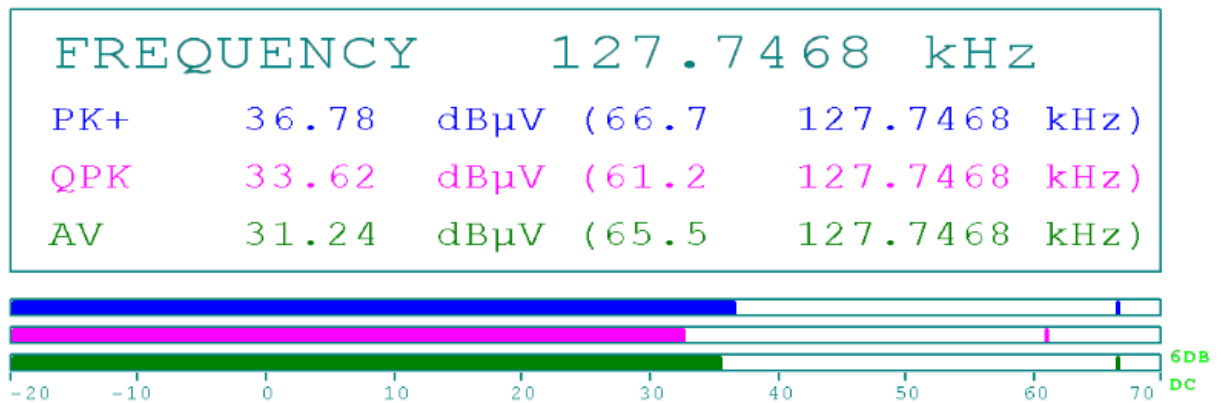


Att 10 dB

RBW 200 Hz

MT 100 ms

PREAMP OFF



Frequency [MHz]	Reading [dBuV]	c.f [dB/m]	Result [dBuV/m]	Limit [dBuA/m]	Margin[dB]	Remark
0.127 7	65.5	24.9	90.4	105.5	15.1	Average

1. Measuring position : The Unwanted emission was measured in the following position:
EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in stand-up position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. Limit : $20\log(2400/127.7) + 40\log(300/3) = 105.5$ dBuV/m

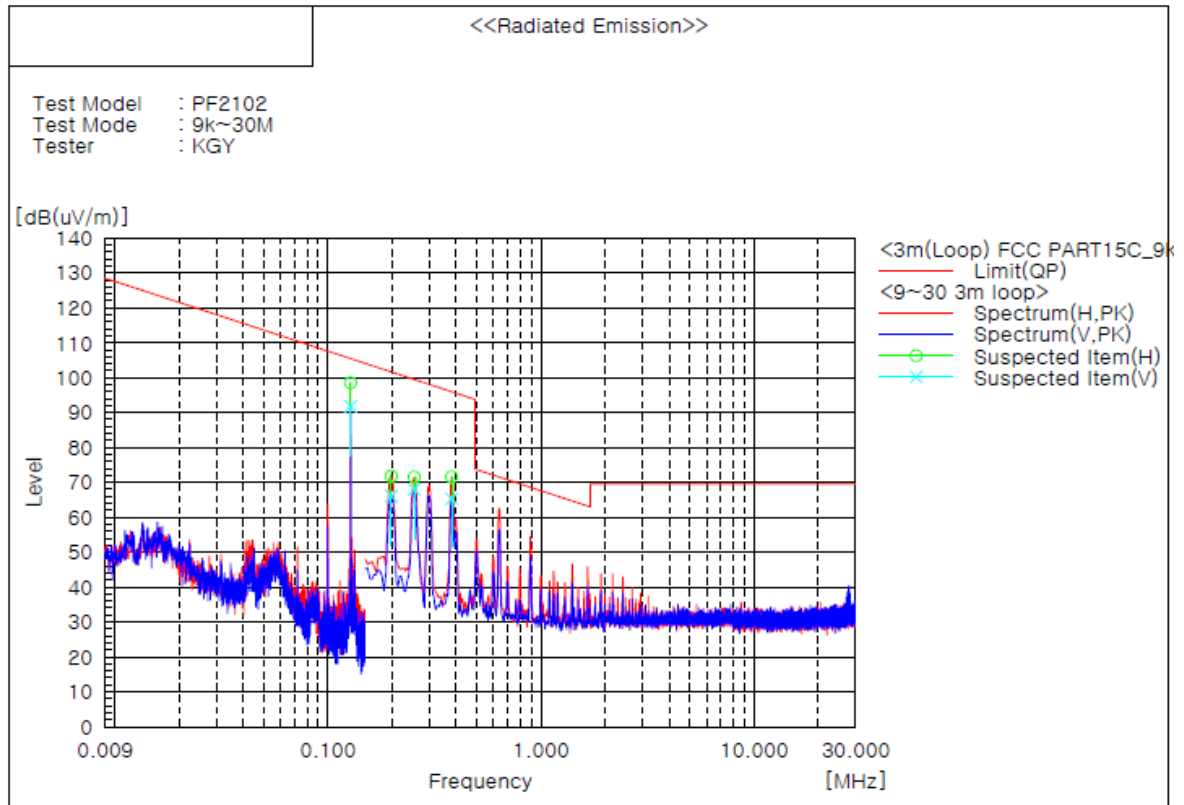
2) 9 kHz to 30 MHz

Test mode : Charging (Transmitting mode)

The requirements are:

☒ Complies

Test Data



Spectrum Selection

No.	Frequency [MHz]	(P)	Reading [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	0.128	H	73.6	24.9	98.5	105.5	7.0	101.0	0.0
2	0.128	V	66.8	24.9	91.7	105.5	13.8	100.0	58.0
3	0.199	H	46.9	24.9	71.8	101.6	29.8	101.0	332.0
4	0.199	V	41.2	24.9	66.1	101.6	35.5	100.0	279.0
5	0.254	V	43.0	25.0	68.0	99.5	31.5	100.0	279.0
6	0.254	H	46.5	25.0	71.5	99.5	28.0	101.0	339.0
7	0.381	V	40.3	25.0	65.3	96.0	30.7	100.0	279.0
8	0.381	H	46.6	25.0	71.6	96.0	24.4	101.0	359.0

Remark :

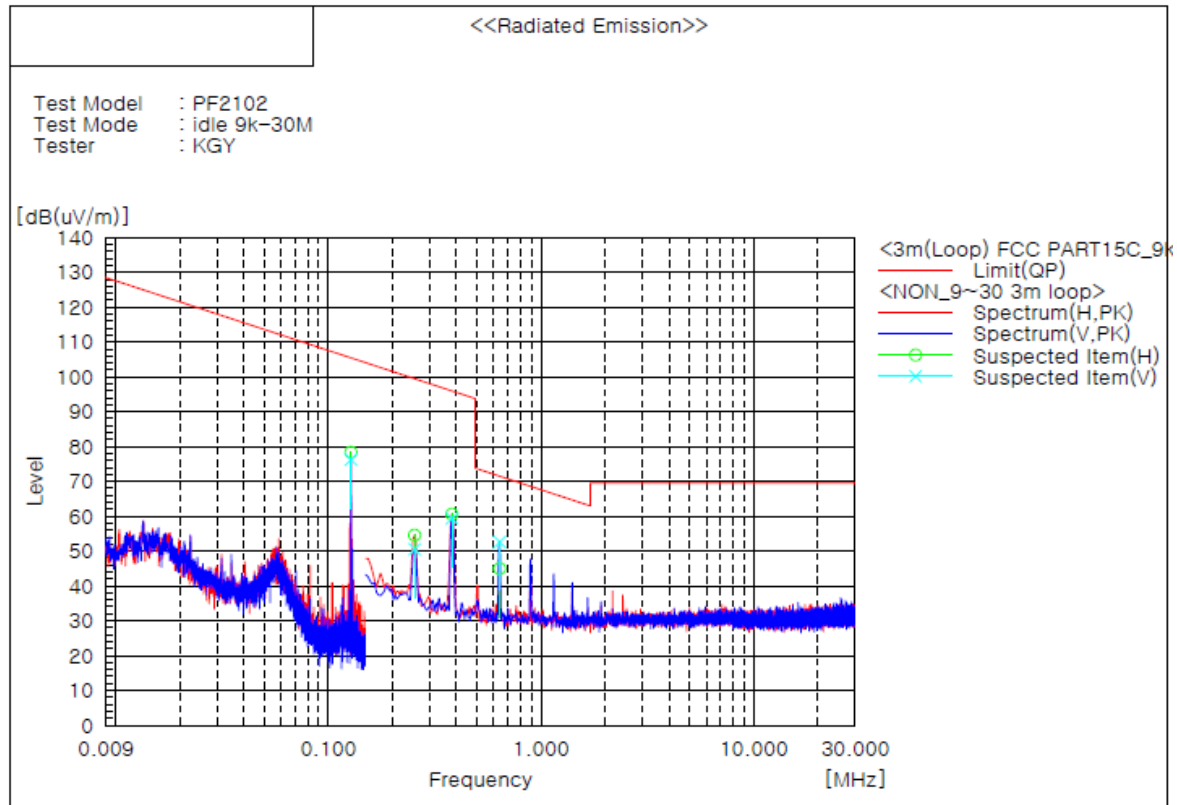
- Measuring position : The Unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in stand-up position(Z axis) and the worst case was recorded.
- Result = Reading + c.f(correction factor)
- Correction factor = Antenna factor + Cable loss + 6 dB attenuator
- Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB)
- This data is the Peak(PK) value.
- No. 1 and 2 in the data table are the Fundamental frequency.

Test mode : Stand-by (idle mode)

The requirements are:

☒ Complies

Test Data



Spectrum Selection

No.	Frequency [MHz]	(P)	Reading [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	0.128	H	53.4	24.9	78.3	105.5	27.2	101.0	40.0
2	0.128	V	51.4	24.9	76.3	105.5	29.2	100.0	216.0
3	0.254	H	29.6	25.0	54.6	99.5	44.9	101.0	21.0
4	0.254	V	25.5	25.0	50.5	99.5	49.0	100.0	64.0
5	0.381	V	34.4	25.0	59.4	96.0	36.6	100.0	282.0
6	0.381	H	35.6	25.0	60.6	96.0	35.4	101.0	21.0
7	0.639	V	27.8	24.9	52.7	71.5	18.8	100.0	282.0
8	0.639	H	20.1	24.9	45.0	71.5	26.5	101.0	169.0

Remark :

1. Measuring position : The Unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in stand-up position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator
4. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
5. This data is the Peak(PK) value.
6. No. 1 and 2 in the data table are the Fundamental frequency.

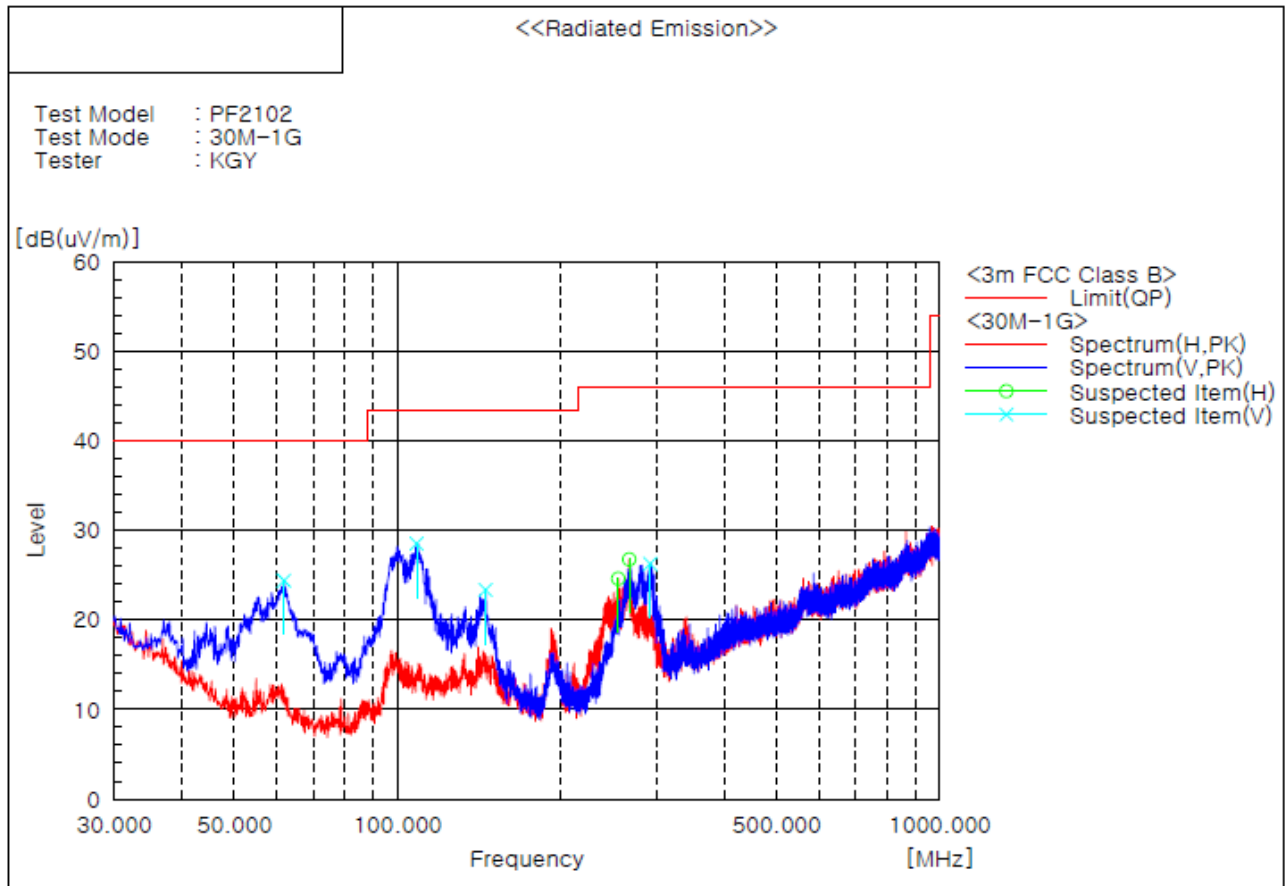
3) 30 MHz to 1 GHz

Test mode : Charging (Transmitting mode)

The requirements are:

☒ Complies

Test Data



Spectrum Selection

No.	Frequency (P)	Reading	c.f	Result PK	Limit QP	Margin QP	Height	Angle
	[MHz]	[dB(uV)]	[dB(1/m)]	[dB(uV/m)]	[dB(uV/m)]	[dB]	[cm]	[deg]
1	292.021	V	35.2	-8.9	26.3	46.0	19.7	101.0
2	267.529	H	35.3	-8.5	26.8	46.0	19.2	100.0
3	108.449	V	41.2	-12.7	28.5	43.5	15.0	101.0
4	61.768	V	42.7	-18.3	24.4	40.0	15.6	101.0
5	255.283	H	33.6	-9.0	24.6	46.0	21.4	100.0
6	145.309	V	35.1	-11.8	23.3	43.5	20.2	101.0

Remark :

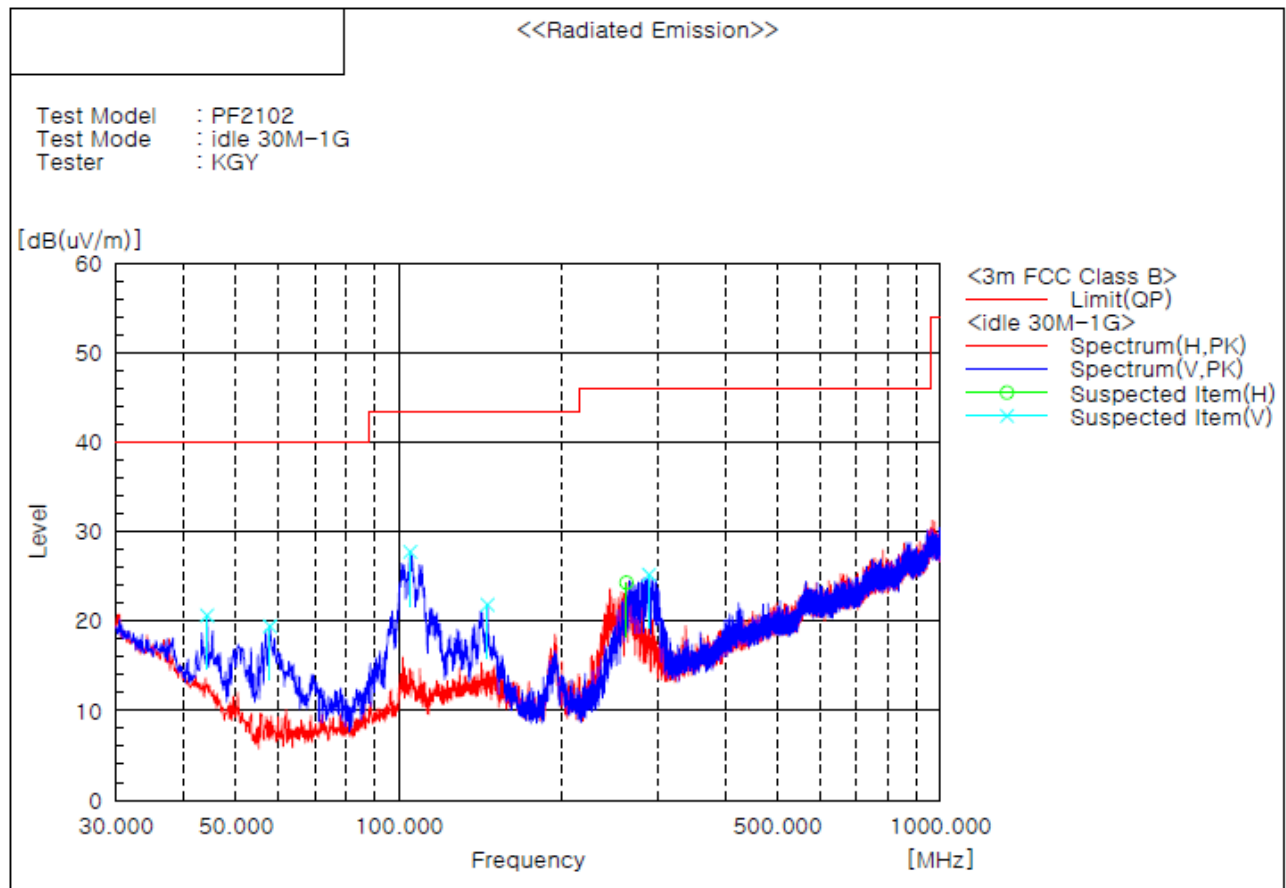
1. The Unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain
4. This data is the Peak(PK) value.

Test mode : Stand-by (idle mode)

The requirements are:

☒ Complies

Test Data



Spectrum Selection

No.	Frequency [MHz]	(P)	Reading [dB(uV)]	c.f [dB(1/m)]	Result PK [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	44.186	V	33.8	-13.2	20.6	40.0	19.4	100.0	88.0
2	57.766	V	37.9	-18.5	19.4	40.0	20.6	100.0	338.0
3	104.933	V	40.8	-13.1	27.7	43.5	15.8	100.0	298.0
4	145.673	V	33.6	-11.8	21.8	43.5	21.7	100.0	148.0
5	263.164	H	32.5	-8.2	24.3	46.0	21.7	101.0	88.0
6	289.596	V	34.2	-9.0	25.2	46.0	20.8	100.0	5.0

Remark :

1. The Unwanted emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in lie-down position(Z axis) and the worst case was recorded.
2. Result = Reading + c.f(Correction factor)
3. Correction factor = Antenna factor + Cable loss + 6 dB attenuator - Amp Gain
4. This data is the Peak(PK) value.

4.3 Emission Bandwidth

Regulation

For reporting purpose only

Requirement

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

The occupied bandwidth or the "99% emission bandwidth" is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

In some cases, the "x dB bandwidth" is required, which is defined as the frequency range between two points, one at the lowest frequency below and one at the highest frequency above the carrier frequency, at which the maximum power level of the transmitted emission is attenuated x dB below the maximum in-band power level of the modulated signal, where the two points are on the outskirts of the in-band emission.

Test Procedures

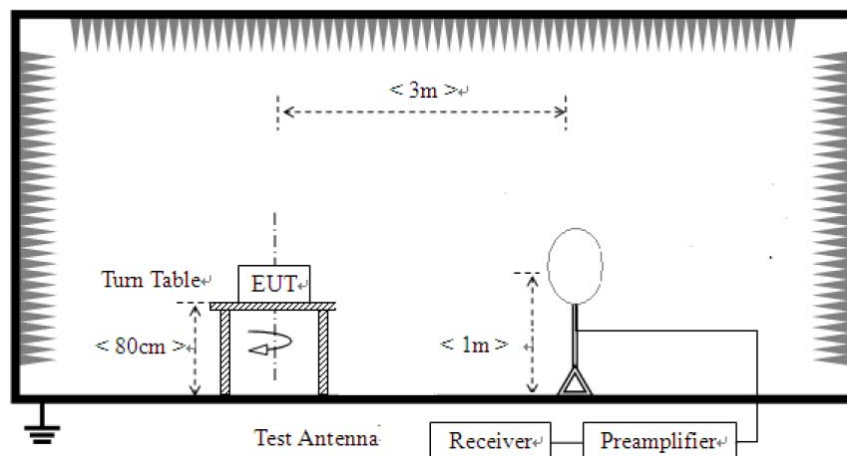
For the emission bandwidth refer ANSI C63.10-2013, clause 6.9(Occupied bandwidth).

Test Settings :

Center frequency = the highest, middle and the lowest channels

- | | |
|---|--|
| a) RBW = 200 Hz (20 dB Bandwidth) | b) RBW = 1 % to 5 % of the OBW (99 % BW) |
| c) VBW $\geq 3 \times$ RBW | d) Detector = peak |
| e) Trace mode = Max hold | f) Sweep = auto couple |
| g) Allow trace to fully stabilize | |
| h) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission. | |

Test Setup

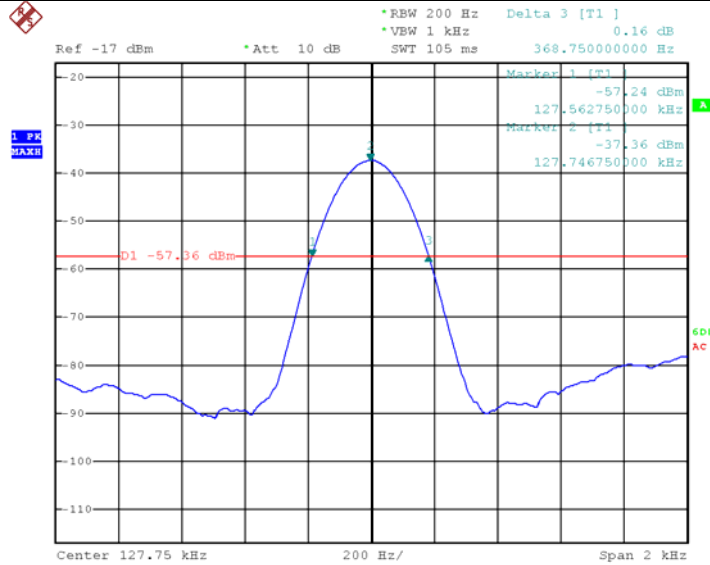


Test results

Emission Bandwidth	Result	Limit
20dB Bandwidth	0.369 kHz	N/A
99% Bandwidth	0.315 kHz	N/A

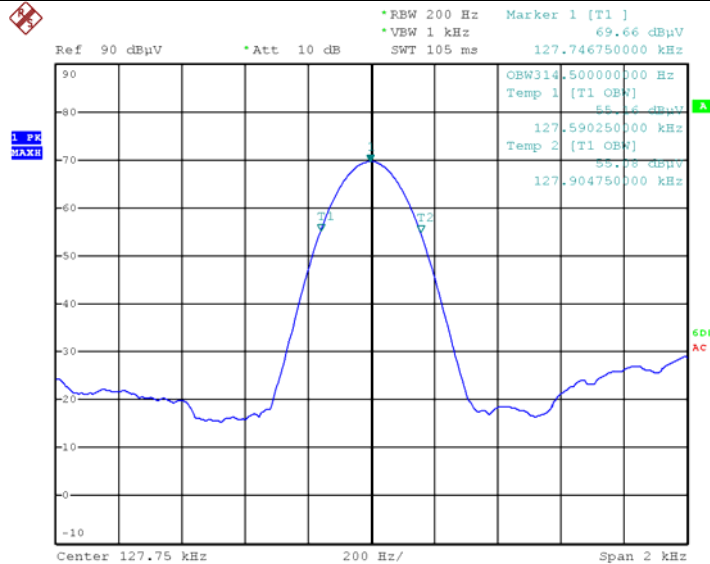
* Measured in Charging (Transmitting mode).

Emission Bandwidth Plot 20dB Bandwidth



Date: 30.MAR.2022 06:37:07

Emission Bandwidth Plot 99% Bandwidth



Date: 30.MAR.2022 06:31:53

4.4 AC Conducted Emissions

A radio apparatus that is designed to be connected to the public utility (AC) power line shall ensure that the radio frequency voltage, which is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz-30 MHz, shall not exceed the limits.

Test Procedures

ANSI C63.10-2013 - Section 6.2.2

The EUT was placed on a non-metallic table 0.8m above the metallic, grounded floor and 0.4m from the reference ground plane wall. The distance to other metallic surfaces was at least 0.8m.

Amplitude measurements were performed with a quasi-peak detector and an average detector.

Limit

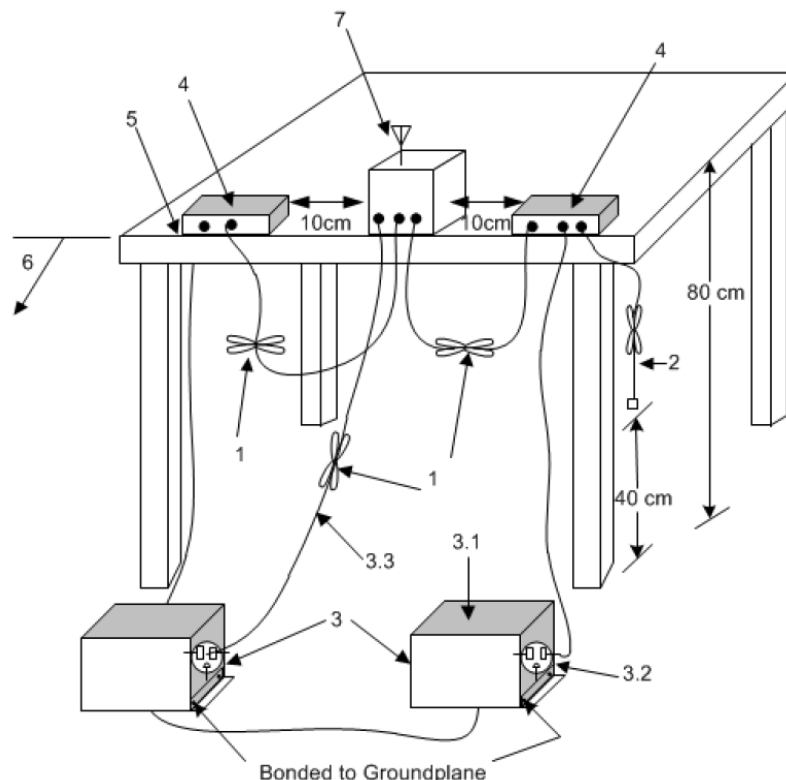
- 15.207(a)

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average**
0.15 ~ 0.5	66 to 56*	56 to 46*
0.5 ~ 5	56	46
5 ~ 30	60	50

* The level decreases linearly with the logarithm of the frequency.

** A linear average detector is required.

Test Setup



Test Results

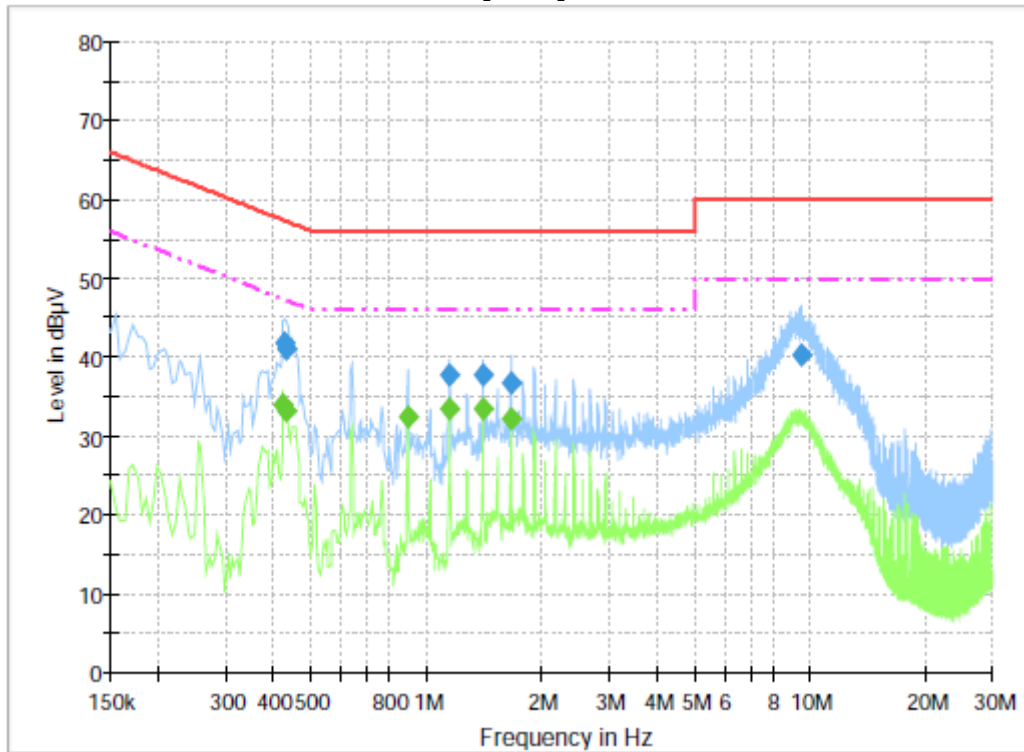
The requirements are:

☒ Complies

Test Data

Test mode : Charging (Transmitting mode)

[LINE]



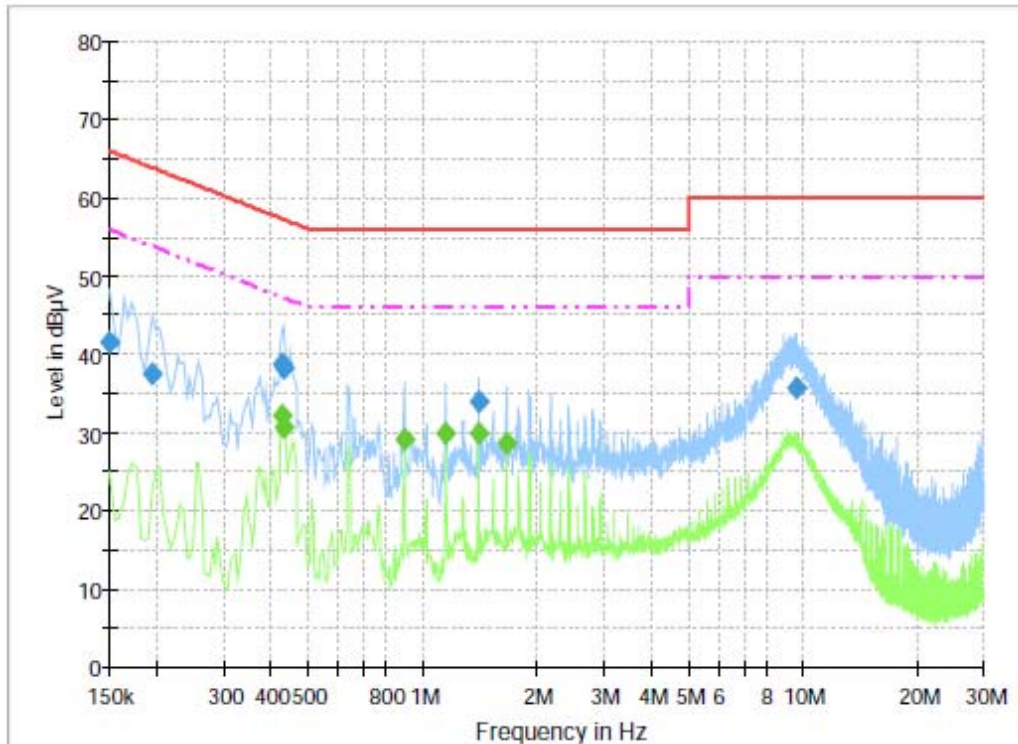
Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.429000	41.8	1000.0	9.000	On	L1	10.0	15.4	57.3
0.433500	41.0	1000.0	9.000	On	L1	10.0	16.1	57.2
1.149000	37.7	1000.0	9.000	On	L1	9.9	18.3	56.0
1.405500	37.6	1000.0	9.000	On	L1	9.9	18.4	56.0
1.662000	36.8	1000.0	9.000	On	L1	9.9	19.2	56.0
9.528000	40.1	1000.0	9.000	On	L1	10.2	19.9	60.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.424500	33.8	1000.0	9.000	On	L1	10.0	13.5	47.4
0.433500	33.1	1000.0	9.000	On	L1	10.0	14.1	47.2
0.892500	32.5	1000.0	9.000	On	L1	9.9	13.5	46.0
1.149000	33.4	1000.0	9.000	On	L1	9.9	12.6	46.0
1.405500	33.4	1000.0	9.000	On	L1	9.9	12.6	46.0
1.662000	32.1	1000.0	9.000	On	L1	9.9	13.9	46.0

[NEUTRAL]



Final Result 1

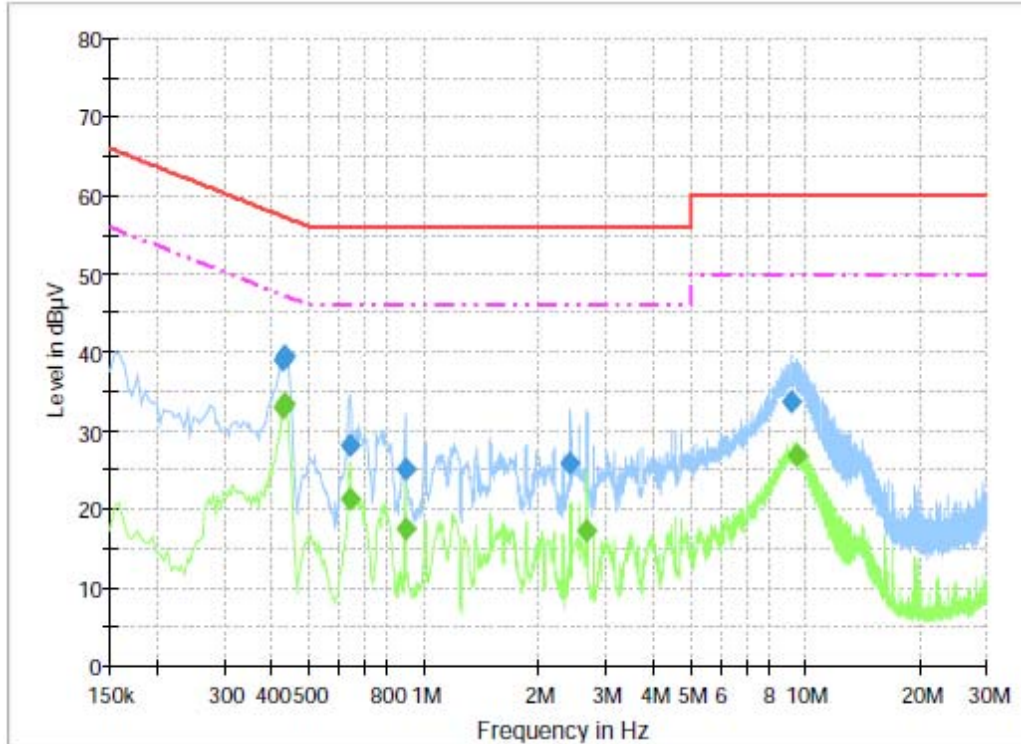
Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	41.5	1000.0	9.000	On	N	9.9	24.5	66.0
0.195000	37.4	1000.0	9.000	On	N	9.9	26.4	63.8
0.429000	38.8	1000.0	9.000	On	N	10.1	18.5	57.3
0.433500	38.2	1000.0	9.000	On	N	10.1	19.0	57.2
1.405500	33.9	1000.0	9.000	On	N	9.9	22.1	56.0
9.645000	35.7	1000.0	9.000	On	N	10.2	24.3	60.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.429000	32.1	1000.0	9.000	On	N	10.1	15.2	47.3
0.433500	30.6	1000.0	9.000	On	N	10.1	16.6	47.2
0.892500	29.0	1000.0	9.000	On	N	9.9	17.0	46.0
1.149000	29.9	1000.0	9.000	On	N	9.9	16.1	46.0
1.405500	29.8	1000.0	9.000	On	N	9.9	16.2	46.0
1.662000	28.7	1000.0	9.000	On	N	9.9	17.3	46.0

Test mode : Stand-by (idle mode)

[LINE]



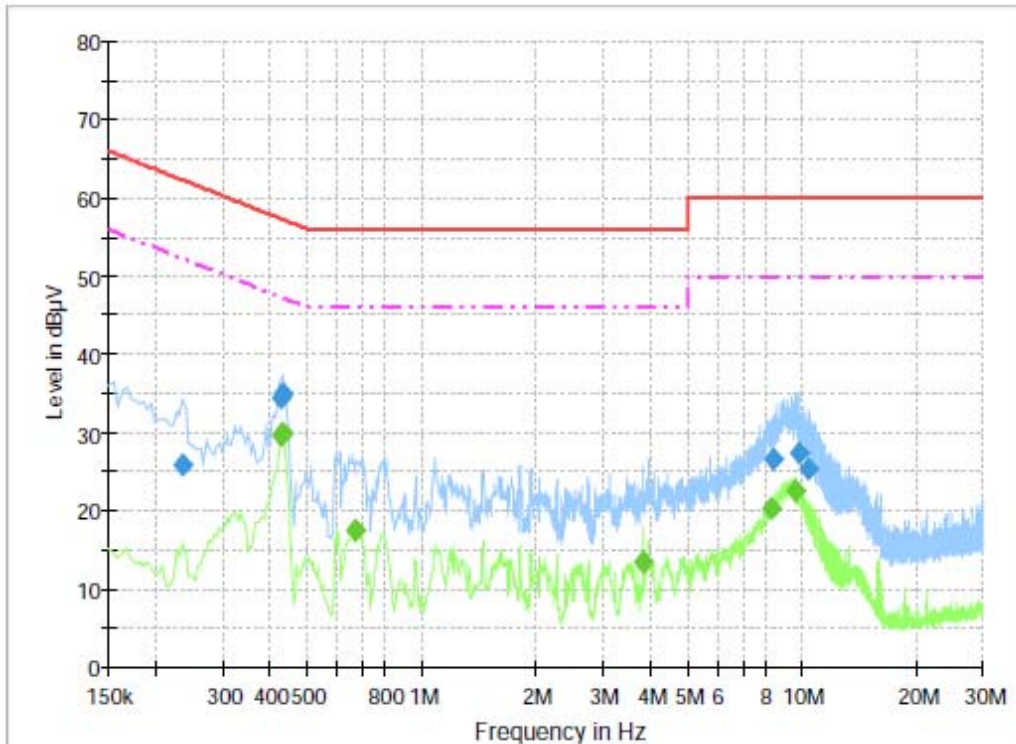
Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.429000	39.0	1000.0	9.000	On	L1	10.0	18.3	57.3
0.433500	39.6	1000.0	9.000	On	L1	10.0	17.6	57.2
0.640500	28.1	1000.0	9.000	On	L1	10.0	27.9	56.0
0.892500	25.0	1000.0	9.000	On	L1	9.9	31.0	56.0
2.427000	25.9	1000.0	9.000	On	L1	9.9	30.1	56.0
9.177000	33.7	1000.0	9.000	On	L1	10.2	26.3	60.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.429000	32.8	1000.0	9.000	On	L1	10.0	14.5	47.3
0.433500	33.5	1000.0	9.000	On	L1	10.0	13.7	47.2
0.640500	21.2	1000.0	9.000	On	L1	10.0	24.8	46.0
0.892500	17.6	1000.0	9.000	On	L1	9.9	28.4	46.0
2.683500	17.3	1000.0	9.000	On	L1	9.9	28.7	46.0
9.546000	26.9	1000.0	9.000	On	L1	10.2	23.1	50.0

[NEUTRAL]



Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.235500	25.8	1000.0	9.000	On	N	9.8	36.5	62.3
0.429000	34.5	1000.0	9.000	On	N	10.1	22.7	57.3
0.433500	34.9	1000.0	9.000	On	N	10.1	22.3	57.2
8.394000	26.5	1000.0	9.000	On	N	10.2	33.5	60.0
9.870000	27.5	1000.0	9.000	On	N	10.2	32.5	60.0
10.477500	25.2	1000.0	9.000	On	N	10.3	34.8	60.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.429000	29.6	1000.0	9.000	On	N	10.1	17.7	47.3
0.433500	29.8	1000.0	9.000	On	N	10.1	17.3	47.2
0.667500	17.5	1000.0	9.000	On	N	10.0	28.5	46.0
3.831000	13.3	1000.0	9.000	On	N	10.0	32.7	46.0
8.286000	20.2	1000.0	9.000	On	N	10.2	29.8	50.0
9.613500	22.5	1000.0	9.000	On	N	10.2	27.5	50.0

5. APPENDIX A – Test Equipment Used For Tests

	Name of Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Receiver	Rohde & Schwarz	ESCI7	100814	2021-10-20	2022-10-20
2	Bilog Antenna	TESEQ	CBL6111D	58490	2021-03-03	2023-03-03
3	Active Loop Antenna	SCHWARZBECK	FMZB 1513	1513-126	2020-05-20	2022-05-20
4	AMPLIFIER	SONOMA	310	291721	2022-01-21	2023-01-21
5	6dB Attenuator	BIRD	5W 6dB	1744	2021-11-18	2022-11-18
6	ATTENUATOR	PASTERNAK	PE7047-6	NONE	2022-02-22	2023-02-22
7	LISN	Rohde & Schwarz	ENV216	101150	2022-01-12	2023-01-12
8	EMI Test Receiver	Rohde & Schwarz	ESCI3	100032	2022-01-11	2023-01-11
9	Dual-Tracking DC Power Supply	Topward Electric Instruments Co.,Ltd.	6303D	997931	2021-07-05	2022-07-05
10	Signal Analyzer	Keysight	N9020B	MY57431080	2022-03-28	2023-03-28
11	DC Power Supply	HP	E3632A	KR75305831	2021-07-19	2022-07-19
12	Active Loop Antenna	SCHWARZBECK	FMZB 1513	1513-125	2020-04-16	2022-04-16

	Cable	Manufacturer	Model No.	Serial No.	Check Date
1	RF Cable (AC Power Line Emissions)	Canare Corporation	L-5D2W	N/A	2022-01-12
2	Extension cord	N/A	N/A	N/A	2022-01-12
3	3m Loop Cable (1 GHz below Radiated)	HUBER+SUHNER	N/A	N/A	2021-02-20
4	RF Cable (1 GHz below Radiated)	HUBER+SUHNER	SUCOFLEX 104	MY27558/4	2021-02-20
5	RF Cable (1 GHz below Radiated)	HUBER+SUHNER	SUCOFLEX 104	N/A	2021-02-20

-END-